

**WORKING MEETING OF
ADVISORY COMMITTEE ON WATER INFORMATION'S (ACWI'S)
SUBCOMMITTEE ON HYDROLOGY (SOH)**

**July, 2005
Rm. 3M-3, FERC Building
888 First Street, NE, Washington, DC 20426**

AGENDA

- 1) Welcome and Introductions
- 2) Review and Approval of Agenda
- 3) Review of minutes from spring meeting
- 4) Action items from spring meeting
- 5) Update on Hydrologic Frequency Analysis Work Group
- 6) Update on Hydrologic Modeling Work Group
- 7) Update on Satellite Telemetry Work Group
- 8) Announcements and Business Reports from Member Organizations
- 9) Other Topics
- 10) Upcoming Meeting of ACWI
- 11) Next SOH Meeting
- 12) Next Post-Meeting Activity
- 13) Adjournment

SUMMARY OF MEETING

PARTICIPATING

Will Thomas, Association of State Floodplain Managers (ASFM)
Martin Becker, Defenders of Property Rights (DPR)
Sam Lin, Federal Energy Regulatory Commission (FERC)
Gene Stallings, National Hydrologic Warning Council (NHWC)
Bill Merkel, Natural Resources Conservation Services (NRCS)
Tom Donaldson, National Weather Service (NWS)
Jerry Webb, US Army Corps of Engineers (USACE)
Don Frevert, USDI Bureau of Reclamation (BOR)
David Wells, US Environmental Protection Agency (EPA)
Robert Mason, US Geological Survey (USGS)

(Note: A total of 10 participated)

MEETING HIGHLIGHTS

The Chair, Don Frevert called the meeting to order at 1:00 p.m. EST.

1. Welcome and Introductions

There were 10 participants representing 10 member organizations. Don indicated this was a summer working meeting while renewal of the ACWI Charter awaits approval.

2. Review and Approval of Agenda

The meeting agenda was adjusted and approved as listed above.

3. Review of Minutes from Spring Meeting

The minutes of the April 12, 2005 subcommittee meeting have been posted on the subcommittee's website below. The minutes of the April 12, 2005 meeting were approved.

http://water.usgs.gov/wicp/acwi/hydrology/minutes/SOH_Minutes_041205Final.pdf

4. Action Items from Spring Meeting

Action: Don Woodward had prepared a draft statement for the Subcommittee that would encourage greater coordination among federal agencies to identify the types of data collection for hydrologic frequency analysis, and suggest improved approaches for making the data available to the public through published reports and the internet.

5. Update on Hydrologic Frequency Analysis Work Group (HFAWG)

Will Thomas reported that the HFAWG had not met since January 26, 2005 but planned to meet in October 2005 prior to the Subcommittee on Hydrology (SOH) meeting. Since the last meeting of the SOH, Don Woodward prepared a draft paper on Post-Flood Data Coordination that encourages greater coordination among Federal agencies in the collection of post-flood data and suggests improved approaches for making the data available to the public through published reports and the internet. Will indicated that he was going to revise this document and send out to the HFAWG for comments. Robert Mason, USGS, indicated that a work group of the Federal Coordinator for Meteorological Services and Supporting Research (FCMSSR) had met in December 2004 and he offered to provide Will the minutes of this meeting. It was agreed that the HFAWG should become more knowledgeable about the FCMSSR work group activities before completing their paper on post-flood data collection.

Will also indicated that he and Jery Stedinger, Cornell University, were discussing the scope of a paper on research needs in flood frequency analysis. Once this document is prepared, it will also be sent out to the HFAWG for comments. Will reported that a paper prepared by Jery Stedinger and a graduate student entitled "Evolution of Flood Frequency Analysis in Bulletin 17" was sent out to the HFAWG for their information. In this paper, Jery suggested that the Expected Moment Algorithm (EMA) be used in Bulletin 17B to adjust for historical information, and to adjust for low and high outliers. He also suggested that a new historical plotting position be

employed and that the confidence limits computations be revised. Will indicated that the HFAWG was going to evaluate the EMA approach possibly using gaging station data that was used in developing the low and high outlier tests for Bulletin 17B. Martin Becker noted that it was important to develop the testing protocol before the initiation of the tests.

A future decision will be needed as to whether the new EMA statistical procedures, if determined to be superior to existing procedures, could be implemented within Bulletin 17B or whether a new bulletin should be developed. Will indicated that the HFAWG would make these recommendations to the SOH once testing and evaluation of the EMA is completed. Martin Becker indicated that any new bulletin, if developed, should have the same standing as Bulletin 17B.

6. Update on Hydrologic Modeling Work Group (HMWG)

Don Frevert reported that the program for the Joint Federal Interagency Hydrologic Modeling Conference and Federal Interagency Sedimentation Conference is full on both sides. The quality of abstracts has been excellent and it appears likely there will be few, if any, rejections. The organizers are planning to add an additional poster session to accommodate more presentations and poster presenters will be allowed up to eight pages for their proceedings contributions. Plans are to send out the announcement and the general program in early August. Authors will be notified shortly regarding acceptance of their papers.

7. Update on Satellite Telemetry Interagency Work Group (STIWG)

The following information (prepared by Stan A. Brua, Chair, STIWG) was presented by Jerry Webb on behalf of the STIWG.

1) 103rd STIWG meeting was held in Sacramento, CA on May 16th. 26 individuals attended, representing about a dozen different Federal organizations, the CA Dept of Water Resources,, and 2 Canadian agencies. Significant discussions involved the several concerns that were expressed by STIWG at the NOAA Stakeholders meeting, included in the minutes of the last SOH meeting in April. These concerns included the lack of a suitable backup system and site, in the event that the primary GOES facility at Wallops Island, VA goes down, and uncertainties regarding NOAA's continued support for the GOES program. STIWG members also discussed the feasibility of developing an Emergency Data Distribution Network (EDDN) to provide real-time GOES data using a network of DRGS's being operated by the various agencies. Costs would be significantly less than developing a full backup of the current GOES-DAPS system (estimated at about \$2million) but there would be a number of logistical problems to overcome, namely location of 1 or 2 central repositories and inherent firewall issues. Public domain software is currently available to efficiently operate this type of a backup system.

2) Stan Brua (COE, STIWG Chair), Ernest Dreyer (USGS), and Kay Metcalf (NOAA-NESDIS) had a very beneficial meeting with Mr. Richard Barazotto, Director, Office of Satellite Data Processing and Distribution, NESDIS, NOAA in Suitland, MD on 14 July to discuss the STIWG

concerns regarding GOES. Mr. Barazotto recognized the critical nature of the GOES system and pledged his continued support for the program. He was also very interested in our plans for the EDDN and wished to become actively involved in this project. Mr. Barazotto also thought that some of our concerns for the GOES program could be met by establishing a formal interagency organization, similar to the National Interagency Fire center (NIFC), to oversee GOES operations. This organization could then interact directly with NOAA and, if done correctly, would force NOAA to make a formal funding commitment to the GOES program. We agreed to look into this option and would solicit STIWG members for their opinions and other considerations. Currently, there are no formal agreements in place between NOAA and Federal agencies that adequately commits NOAA to provide GOES services to the agencies. Suggestions and opinions of the SOH members on this matter are also welcomed and can be e-mailed to Stan.A.Brue@usace.army.mil

3) Next STIWG meeting will likely be in the Gulfport/Biloxi, MS area near the beginning of November.

8. Announcements and Business Reports from Member Organizations

Defenders of Property Rights

Martin Becker had no new developments to report.

USACE

Jerry Webb reported below:

- 1) Three inter-disciplinary teams are currently working on developing a screening portfolio analysis for Dam Safety of approximately 60 dams across the nation that have known deficiencies. The initial phase of the screening portfolio will be completed this FY and the program will continue in FY 06 depending on the availability of funds.
- 2) The Corps of Engineers is hosting a workshop on "Proposed Methods of Generating the Annual Exceedance Probability of the Probable Maximum Flood" at the Hydrologic Engineering Center (HEC) 26-27 July 2005. The workshop will include USBR, USGS, NOAA, FERC, USACE and numerous consultants. The workshop is being held to support the Screening Portfolio Risk Assessment that is currently underway by USACE.
- 3) The 2005 Tri Service Infrastructure Systems Conference & Exhibition will be held at the Convention Center in St. Louis, MO 2-4 August 2005. The theme of the conference is "Re-energizing Engineering Excellence" and it will include aspects of the USACE civil works and military programs including multiple sessions for the Hydrology, Hydraulics and Coastal Community of Practice. Information is available on the conference website at www.ndia.org.
- 4) The Corps, USBR, FERC, and FERC licensees Workshop on Dam Safety Items - H&H, Seismic, and Emergency Action Plans and exercises will be held in Portland, OR, 8 and 9 Nov

2005. The workshop will be lead by FERC and co-hosted by the Corps with support/participation from the USBR. Three main topic areas on the agenda are H&H, Seismic, and Emergency Action Plans. Main topics are the current policy, methods, processes, current and future research, etc. used by the Corps, FERC, and USBR to govern, guide, etc. the flood size, frequency, routings, etc; seismic/seismology used in the NW, and EAP activity per each agency. The agenda and list of attendees is still being developed. We expect that various state agency representatives, industry (A-Es or consultants) representatives, and non-federal hydropower owners will be in attendance.

NHWC

Gene Stallings reported that the NHWC requested David Ford Consulting Engineers, Inc. to perform an evaluation of the benefits of the U.S. Geological Survey streamgaging program. Phase I of this evaluation calls for a report that identifies the users and uses of streamgaging data. This has been recently completed and is under review. Phase 2 calls for a second report that presents probable economic benefits of selected uses. Work will continue on Phase 2 of this evaluation while Phase 1 review is under way. Gene Stallings, Member of SOH is working on the flood mitigation and flood warning portion of the Phase 2 report. Any basic information on economic benefits from USGS gages and flood events should be sent directly to him.

NWS

Tom Donaldson reported that the NOAA/NWS has requested the National Research Council conduct a study pertaining to the communication of probabilistic weather, climate, and hydrologic information. The NWS Hydrology Program is also considering whether to conduct a series of focused user forums to determine how we can better communicate the uncertainty associated with hydrologic forecasts.

Tom also reported that late this calendar year a new software build will go out to all Weather Forecast Offices (WFO) which will provide a more interactive capability for users of NWS AHPS (Advanced Hydrologic Prediction Service) information.

Another user requested activity that is being addressed is the consistency of RFC (Requests for Comments) web pages. A NWS team has been formed whose vision is to provide a nationally consistent look, feel and structure for RFC Web pages. The team's mission includes identifying common products and information provided by RFCs that can serve as part of a national AHPS information baseline.

Association of State Floodplain Managers (ASFPM)

Will Thomas reported that the ASFPM held their annual meeting in Madison, Wisconsin during the week of June 13-17, 2005. There were about 1,000 attendees and there was a heavy emphasis on Map Modernization. Of interest to the SOH, there were a couple of presentations on the 1-percent (100-year) flood standard and whether it was sufficient. These presentations were a follow-up to the September 21-22, 2004 meeting at the National Academy of Science. Will indicated that a report describing the results of the September 21-22 meeting was posted on the ASFPM web site at <http://www.floods.org/foundation/forum.asp>. He also indicated that

there was an ongoing study to evaluate the 1-percent flood standard that was being led by researchers at the University of Maryland. This study will be completed in the fall of 2005.

USGS

Robert Mason disseminated and explains two new fact sheets below:

- “Streamflow trends in the United States – from the national Streamflow Information Program (USGS Fact Sheet 2005-3017 March 2005)
- StreamStats: A U.S. Geological Survey Web Application for Stream Information (USGS Fact Sheet FS 2004-3115 2005)

FERC

Sam Lin reported below:

On May 5, 2005 a significant sinkhole (approximately 40 ft in diameter by 9.5 ft deep through crest/upstream slope) was discovered in the crest of the Swinging Bridge embankment dam (965-ft long, 135-ft high; 32,000 ac-ft of storage volume; built in 1930) located on the Mongaup River upstream of its confluence with the Delaware River, in Forestburgh, Sullivan County, New York. The dam is classified as a significant hazard potential structure. The Licensee immediately implemented their Emergency Action Plan (EAP) for a level “B” notification to local emergency management agencies. The level “B” emergency means “potentially hazardous situation is developing”. Meanwhile, the licensee took emergency actions to stabilize the dam including drawing down the reservoir to a safe level. While the situation is current stable, there are still unknowns that are now under investigation. An investigative program has commenced to assess the condition of the dam, to determine the cause of the sinkhole, and to determine actions necessary to correct the problem. A series of public information and Board of Consultants meetings were and will be held near the project site concerning the sinkhole deficiency status and appropriate remedial measures to be taken.

Since this month Joseph T. Kelliher, who has served on the commission since November 2003 as a commissioner, has replaced Pat Wood as chairman. As a senior policy adviser to then-Energy Secretary Spencer Abraham, Kelliher was the Energy Department's day-to-day point man with Vice President Dick Cheney's energy task force in 2001.

Bureau of Reclamation

Don Frevert reported that Deputy Commissioner Mark Limbaugh has been nominated to be Assistant Secretary for Water and Science. Reclamation and other federal agencies are participating actively in the Watershed Management 2005 Conference in Williamsburg July 19-22. IT security remains a high priority within Reclamation. The new visual identity for Reclamation has been in place for several months now and is being well received.

NRCS

Bill Merkel announced new e-mail addresses below:

William.Merkel@wdc.usda.gov and Jon.Werner@por.usda.gov.

EPA

David Wells reported below:

EPA is continuing to work with the USGS on the National Hydrography Dataset (NHD). The NHD is a collection of surface water features that includes spatial representations and attributes. An integrated team from both Agencies has recently been working on a new effort named the "NHD-Plus." This project will produce an integrated set of GIS data based on the 1:100,000 scale-NHD network. NHD-plus will include improved networking and naming, as well as elevation-derived watershed catchments produced using a drainage enforcement technique called "The New England Method." This method involves "burning-in" the 100K hydrography and building "walls" using the National Watershed Boundaries Dataset. The first data set for the Ohio River Basin has been completed and is undergoing review. A national data set for the continental U.S. is expected to be completed by the end of the calendar year.

9. Other Topics

- 1) Since our ACWI Charter is awaiting its renewal, the formal vote to select the next vice chair will be delayed.
- 2) Don Frevert asked attendees to send their report notes to Sam Lin and cc to him by next Friday (7/29) for meeting records.
- 3) Martin Becker asked about release of source code on hydrologic models by the federal agencies and executable version of their models to document their results. A number of agencies indicated that they release their source code. The Corps of Engineers does not generally release its source code and the Bureau of Reclamation sometimes deals with proprietary software situations where source code is not released. Please provide that information at the October 20 meeting.

10. Upcoming Meeting of ACWI

The date of the next ACWI meeting is September 14. It will be a one-day meeting at USGS. Federal members, committee chairs, folks in the area will come in to the USGS auditorium. Our out of town non fed members will be participating by WebEx (web/telephone conferencing). This is due to lack of funding this fiscal year for additional non-Federal travel.)

In mid-January (date to be determined) we will have a more formal 2-day ACWI meeting and bring in all non-fed members to be present.

- The topics for the September 14 meeting will be limited to:
- Preliminary report on the National Monitoring Network
- Preliminary report from the Sustainable Water Resources Roundtable
- Final report from the 2004 Cooperative Water Program Task Force
- Final publication of Guidelines for Water Quality Data Elements, including biology
- Announcements

11. Next SOH Meeting

The next meeting will be held at FERC headquarters building (888 First Street, NE, Washington, D.C., 20426) on October 20, 2005. The meeting will start at 9:30 am EST.

Action: The meeting participants entering the FERC building need to preconfirm their attendance with Sam Lin

12. Next Post-Meeting Activity

Sam Lin proposed a post-meeting activity for the October meeting. The Subcommittee can make a tour of visiting the impressive FERC Market Monitoring Center (MMC) for about an hour at Room 53-03 of this building.

The FERC is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects. Robert Czarick, an energy market expert with FERC will present to us how the FERC provides an access to powerful commercially available information services. The introduction of his briefing of the MMC is attached below.

13. Adjournment

The meeting was adjourned at 3:20 p.m. EST.

ATTACHMENT. FERC Real-Time Market Monitoring Center (MMC) Tour

FERC oversees wholesale electricity and interstate natural gas markets. The Market Monitoring Center (MMC) is an energy market information resource center that gives staff access to a variety of powerful commercially available information services. These services, many of which are the same used by energy traders, provide a broad range of data pertaining to energy markets. The data includes load, price and interruptions on the electric and gas systems and financial indicators for the gas and electric industries. Real-time data is acquired via a high-speed communication link to the Internet and powerful PC workstations. High-end software applications and services provide FERC/OMOI (Office of Market Oversight and Investigations) staff volumes of historic data required to monitor and analyze energy market events.

Due to the centralization of energy analytical tools, the MMC provides a cutting edge portfolio to expanded staff without the costly limitations of licensing stand-alone products. The added benefit to centralization is the elimination of data bottlenecks— staff can freely exchange and organize information.